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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,994	06/16/2006	Masashi Sato	128145	1879

25944 7590 10/28/2010

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EXAMINER	
KOLLIAS, ALEXANDER C	

ART UNIT	PAPER NUMBER
1725	

NOTIFICATION DATE	DELIVERY MODE
10/28/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OfficeAction25944@oliff.com
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Office Action Summary	Application No.	Applicant(s)	
	10/581,994	SATO ET AL.	
	Examiner	Art Unit	
	ALEXANDER C. KOLLIAS	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 October 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5 and 8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5 and 8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. All outstanding claims objections and 35 USC 112, 2nd paragraph rejections are withdrawn in light of Applicant's amendment filed on 10/1/2010.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

3. No new grounds of rejection are set forth below. Thus, the following action is properly made final.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (US 2003/0207979) in view of Lewin (US 2002/0013393) and Nakamura et al (US 2003/0207106).

Regarding claim 5, Sato et al discloses an insulated wire comprising a flame retardant resin composition. The fire retardant resin composition is disclosed as comprising 30 to 90 parts by weight polyethylene having a melt flow rate of less than 5 g/10 min and a density of at least 0.30 g/cm^3 (disclosed component a), about 5 to 65 parts by weight of an olefin type polymer containing intra molecular oxygen atoms such as (component b1), 5 to 40 parts by mass of least one polymer such as acid modified olefin polymer, acid modified styrene thermoplastic, acid modified polyethylene, etc (components c1-c4) and 30 to 250 parts by mass of a metal hydroxide such as aluminum or magnesium hydroxides (Page 1 [0024]-[0028], Page 2 [0029]-[0034], Page

4 [0107]-[0110]). It is noted that the amount of metal hydroxide or hydrate disclosed by the reference is identical to that recited in claim 5. Further, it is noted that the density and melt flow rate of the polyethylene are within the ranges of 5 g/10 min or less and 0.90 g/cm^3 or more presently recited in claim 5. Given that the reference discloses that acid modified styrene, the condition that at least one polymer (B) is modified by acid recited in claim 1 is met. Polyethylene comprises 30 to 90 parts by mass in the total of 100 parts by mass (30 to 90 wt %) while the acid modified styrene comprises 10 to 40 parts by mass in the total of 100 parts by mass (10 to 40 wt %) comprising components (a) (b1) and (c) (Page 3 [0093] and Page 4 [0105]). Given that the reference discloses acid modified styrene it is clear that the disclosed resins meet the proviso that compositions comprises at least one resin modified by acid. It is noted that the amounts of the resin are with the range of 30 to 90 wt % of polyethylene and 70 to 10 wt % of resin (B) recited in claim 1. The reference that the composition is cross-linked (Page 2 [0035]). Given that the reference does not disclose halogenated compounds added to the composition, it is clear that the coating composition is non-halogenated. Additionally, Sato teaches that the composition comprises fire retardant adjuvants such as zinc borate (Page 4 [0111]).

While Sato does discloses the use of zinc compounds in the fire retardant composition, the reference does not disclose the specific zinc compound or amounts thereof as required by the present claims

Lewin discloses a polymeric flame retardant composition comprising sulfur compounds such as zinc sulfide which are added to the compositions in amounts of 1-3 wt % in order to obtain a pronounce flame retardancy (Page 1 [0009]-[0010], Page 2 [0011]). At combustion zinc sulfide is oxidized to higher valency products and interact with the polymer to render a flame-

retarding surface barrier (Page 2 [0011]). It is noted that the amounts of 1 to 3 wt % zinc sulfide in within the amounts of zinc compound, on a weight percent basis, i.e. 0.76 to 5.40 wt % of a zinc compound, recited in claim 5

Given that both Sato and Lewin are drawn to fire retardant polymeric compositions, in light of the particular advantages provided by the use and control of zinc sulfide and amounts thereof as taught by Lewin, it would therefore have been obvious to one of ordinary skill in the art to include such compounds in the composition disclosed by Sato with a reasonable expectation of success

The combined disclosures of Sato and Nakamura teach disclose all the claim limitations as set forth above. However, the references do not discloses a wiring harness comprising a single wire bundle containing non-halogenated insulated wires and a wiring harness protective material for covering the wire bundle comprising vinyl chloride as the base material.

Nakamura et al discloses a wire harness material comprising a substrate made of non-halogen based resin and a wire bundle comprising wires coated with a non-halogen based resin or a bundle comprising a mixture of non-halogen coated and polyvinyl chloride coated wires (Page 3 [0040]). The wire harness comprises a tape base painted with adhesive which prevents plasticizers and adhesive adjuvants from migrating; thereby the wire harness obtains a stable and durable cable quality (Page 3 [0040]).

Given that both Sato and Nakamura et al are drawn to non-halogenated coatings for wires, in light of the particular advantages provided by the use and control of the wire harness and cable bundles as taught by Nakamura et al, it would therefore have been obvious to one of

ordinary skill in the art to include such wire harnesses and wire bundles comprising the coating disclosed by Sato with a reasonable expectation of success.

Regarding claim 8, Sato et al discloses an insulated wire and a wiring harness comprising a flame retardant resin composition. The fire retardant resin composition is disclosed as comprising 30 to 90 parts by weight polyethylene having a melt flow rate of less than 5 g/10 min and a density of at least 0.30 g/cm^3 (disclosed component a), about 5 to 65 parts by weight of an olefin type polymer containing intra molecular oxygen atoms such as (component b1), 5 to 40 parts by mass of least one polymer such as acid modified olefin polymer, acid modified styrene thermoplastic, acid modified polyethylene, etc (components c1-c4) and 30 to 250 parts by mass of a metal hydroxide such as aluminum or magnesium hydroxides (Page 1 [0024]-[0028], Page 2 [0029]-[0034], Page 4 [0107]-[0110]). It is noted that the amount of metal hydroxide or hydrate disclosed by the reference is identical to that recited in claim 5. Further, it is noted that the density and melt flow rate of the polyethylene are within the ranges of 5 g/10 min or less and 0.90 g/cm^3 or more presently recited in claim 8. Given that the reference discloses that acid modified styrene, the condition that at least one polymer (B) is modified by acid recited in claim 8 is met. Polyethylene comprises 30 to 90 parts by mass in the total of 100 parts by mass (30 to 90 wt %) while the acid modified styrene comprises 10 to 40 parts by mass in the total of 100 parts by mass (10 to 40 wt %) comprising components (a) (b1) and (c) (Page 3 [0093] and Page 4 [0105]). Given that the reference discloses acid modified styrene it is clear that the disclosed resins meet the proviso that composition comprises at least one resin modified by acid. It is noted that the amounts of the resin are with the range of 30 to 90 wt % of polyethylene and 70 to 10 wt

% of resin (B) recited in claim 1. The reference discloses that the composition is cross-linked by radiation, i.e., electron beam irradiation (Page 2 [0035]). Given that the reference does not disclose halogenated compounds added to the composition, it is clear that the coating composition is non-halogenated. Additionally, Sato teaches that the composition comprises fire retardant adjuvants such as zinc borate (Page 4 [0111]).

While Sato does discloses the use of zinc compounds in the fire retardant composition, the reference does not disclose the specific zinc compound or amounts thereof as required by the present claims

Lewin discloses a polymeric flame retardant composition comprising sulfur compounds such as zinc sulfide which are added to the compositions in amounts of 1-3 wt % in order to obtain a pronounce flame retardancy (Page 1 [0009]-[0010], Page 2 [0011]). At combustion zinc sulfide is oxidized to higher valency products and interact with the polymer to render a flame-retarding surface barrier (Page 2 [0011]). It is noted that the amounts of 1 to 3 wt % zinc sulfide in within the amounts of zinc compound, on a weight percent basis, i.e. 0.76 to 5.40 wt % of a zinc compound, recited in claim 8.

Given that both Sato and Lewin are drawn to fire retardant polymeric compositions, in light of the particular advantages provided by the use and control of zinc sulfide and amounts thereof as taught by Lewin, it would therefore have been obvious to one of ordinary skill in the art to include such compounds in the composition disclosed by Sato with a reasonable expectation of success

The combined disclosures of Sato and Nakamura teach disclose all the claim limitations as set forth above. However, the references do not discloses a wiring harness comprising a

single wire bundle containing non-halogenated insulated wires and a wiring harness protective material for covering the wire bundle comprising vinyl chloride as the base material.

Nakamura et al discloses a wire harness material comprising a substrate made of non-halogen based resin and a wire bundle comprising wires coated with a non-halogen based resin or a bundle comprising a mixture of non-halogen coated and polyvinyl chloride coated wires (Page 3 [0040]). The wire harness comprises a tape base painted with adhesive which prevents plasticizers and adhesive adjuvants from migrating; thereby the wire harness obtains a stable and durable cable quality (Page 3 [0040]).

Given that both Sato and Nakamura et al are drawn to non-halogenated coatings for wires, in light of the particular advantages provided by the use and control of the wire harness and cable bundles as taught by Nakamura et al, it would therefore have been obvious to one of ordinary skill in the art to include such wire harnesses and wire bundles comprising the coating disclosed by Sato with a reasonable expectation of success.

Response to Arguments

5. Applicant's arguments filed 10/1/2010 have been fully considered but they are not persuasive.

6. With respect to Applicants arguments regarding unexpected results, specifically the results based on the presence of zinc sulfide in the cross-linked flame retardant composition as compared to other zinc compounds, i.e. zinc borate, while it is noted that Comparative Example 8 and Inventive Example 8 are proper side by side comparisons, differing only in the type of zinc

compound, it is significant to noted that the Inventive Example 8 is not commensurate in scope with the scope of the closest prior art of record. Lewin discloses the use of zinc sulfide which are added to the compositions in amounts of 1-3 wt % in order to obtain a pronounce flame retardancy. The Inventive Example 8 in Table 1 of the present Specification comprises 4.98 wt % (10 parts total) of zinc sulfide, which while is within the scope of the presently claimed amount of 0.76 to 5.40 wt % (1 to 20 parts) is outside the upper bound amount of 1 to 3 wt %. That is based on sole comparison of Comparative Example 8 to Inventive Example 8, it is simply not possible to determine if results obtained for Conditions A and B are in fact unexpected or surprising.

Further, it is significant to note that the above is not the only deficiency of the examples based on the applied prior art of record. The present claims recite that the compositions comprises a metallic hydrate which clearly encompasses the metallic hydrate, magnesium hydrate utilized in the inventive and comparative examples. However, the primary reference, Sato discloses not only magnesium hydrate but aluminum hydrate as well. From the results presented in Inventive Example 8 and Comparative Example 8 it is not clear that the results obtained for Conditions A and B are indicative for all metallic hydrates. That is, there is no evidence to record suggesting that a composition within the scope of present claims, e.g. Inventive Example 8 would obtain similar results for any metallic hydrate. Given the broad recitation of metallic hydrate in the present claims, and the disclosure in Sato et al of other hydrates, e.g. aluminum hydrate, Inventive Example 8 is not commensurate in scope with the scope of the closest prior art of record or the preset claims.

7. With respect to Applicants' arguments that Lewin does not disclose any teaching directed to compatibility of zinc sulfide with vinyl chloride insulated wire, it is noted that while Lewin does not disclose all the features of the present claimed invention, the reference is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely the use of zinc sulfide as a fire retardant, and in combination with the primary reference, discloses the presently claimed invention. If the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

8. To support their position that the data is commensurate in scope with the scope of the claims, applicants point to In re Grasselli. However, it is note clear why Applicants have pointed to this particular case law given that it appears to support the Examiner's position that the data one compounds is not commensurate with a claims that encompasses multiple compounds.

9. With respect to the 37 C.F.R. 1.132 Declaration filed on 10/1/2010 and the comparison of Inventive Example 6 to Inventive Examples 15-17 Applicants set forth Paragraphs 10A-10F. However, these appear to be conclusionary statements with no evidence support Applicants' position.

10. It is noted that (a) were Applicants to amend the metallic hydrate recited in the present claims to recite magnesium hydroxide and (b) to provide a proper side by side inventive and comparative examples utilizing zinc borate and zinc sulfide in the amount taught by Lewin, i.e. identical to Inventive and Comparative Examples 8 but utilizing zinc borate and zinc sulfide in amounts within 1 to 3 % respectively, the Examiner would reconsider the rejections of record set forth above.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER C. KOLLIAS whose telephone number is (571)-270-3869. The examiner can normally be reached on Monday-Friday, 8:00 AM -5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on (571)-272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. C. K./
Examiner, Art Unit 1727

/Basia Ridley/
Supervisory Patent Examiner, Art Unit 1725